

*Cancel C1*

a temporal pulse width shorter than about 100 ns, and an average output power of greater than about 100 mW measured over the spatial spot size; and

applying the laser output pulses to the target so that the laser output pulses cleanly remove at least two layers within the spatial spot size.

Cancel claim 12.

Amend claim 26 as follows.

*15* 26. (Twice amended) The method of claim 15 *14* in which the laser output pulses are generated at a repetition rate of greater than about 1 kHz;] in which the target comprises at least an organic dielectric material, a reinforcement material, and a metal; and in which the organic dielectric material comprises PTFE, polyimides, epoxies, BT, phenolics, cyanate esters, paper, cardboard, or combinations thereof; the reinforcement material comprises glass, aramid fibers, Kevlar™, ceramics, or combinations thereof; and the metal comprises aluminum, titanium, nickel, copper, tungsten, platinum, gold, molybdenum, palladium, silver, or combinations thereof.

Add the following claims.

*3* *25* 31. The method of claim 1 further comprising:  
forming a via having a depth of greater than 25  $\mu\text{m}$  and having a diameter greater than that of the spatial spot size and smaller than about 300  $\mu\text{m}$ .--

*26* 32. The method of claim 1 in which the layers comprise any combination of at least two of the following chemical compositions:  
inorganic reinforcement material, or metal or combination of metals, or organic dielectric material with or without organic reinforcement material.--

*27* 33. A method for laser processing a multi-layered target including at least two layers having different chemical compositions, comprising:

generating high power ultraviolet laser output pulses having a predetermined spatial spot size, a wavelength shorter than about 400 nm, a temporal pulse width shorter than about 100 ns, and an average output power of greater than about 100 mW measured over the spatial spot size; and

applying the laser output pulses to the target so that at least one of the laser output pulses simultaneously removes material from at least two layers within the spatial spot size and the laser output pulses cleanly remove at least two layers within the spatial spot size.--

*28* 28. The method of claim 33 further comprising:

*29* forming a via having a diameter greater than that of the spatial spot size and smaller than about 300  $\mu\text{m}$ , the via also having a depth of greater than 25  $\mu\text{m}$  and the laser output pulses being generated at a repetition rate of greater than about 1 kHz.--

*29* 29. The method of claim 34 in which the layers comprise any combination of at least two of the following chemical compositions: inorganic reinforcement material, or metal or combination of metals, or organic dielectric material with or without organic reinforcement material.--

*30* 30. The method of claim 35 in which the spatial spot size is less than about 50  $\mu\text{m}$  in diameter.--

#### REMARKS

Claims 1-11, 13, 15-17, and 22-36 are pending in the application, of which claims 1 and 33 are in independent form. Claims 1 and 26 are amended. Claim 12 is cancelled. Claims 31-36 are added.

Claims 1-10, 12, 24, 25, 28, and 29 stand rejected under 35 U.S.C. § 102(a) for being anticipated by the Fall 1993 issue of *LaserPulse* and the unnumbered page entitled "4420 Laser Micro Machining System" ("4420 brochure") published by Electro Scientific Industries, Inc. Claim 11